

smo

Sondermaschinen
Oschersleben GmbH

Flexibility without limits

■ **OVER-PRINTING PRESS EDM200**



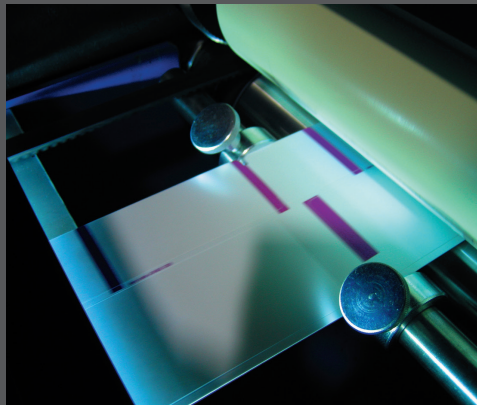
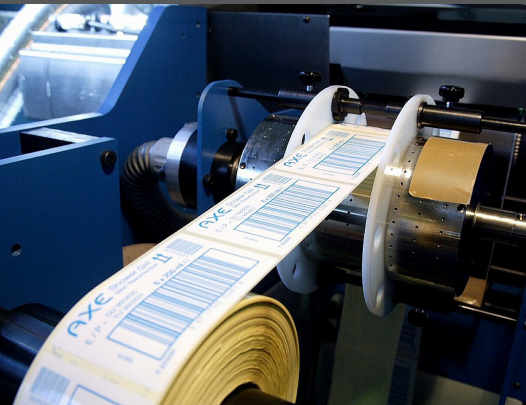
■ EDM200 SEMI-ROTARY UV-FLEXO OVER-PRINTING MACHINE

The EDM200 is the world's first ever designed semi-rotary, servo-driven UV-flexo machine, using sleeve technology for both print and anilox cylinders, and working with chambered doctor blade technology.

The machine is newly developed, specifically providing a very economic production of short-run, fast turn-round work for labels, tickets and tags, and is designed to work mainly as an over-printing machine. With its unique inseting register control system it is possible to re-pass a pre-die-cut and/or pre-printed web in absolute register, and due to the servo-driven, semi-rotary web advance mode the printing length is infinitely variable. The printing sleeve makes seam-less or endless printing possible, when the machine is running in fully rotary mode.

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The combined benefits of the features are: practically no waste generated during job set-up, change of job, change of reel, stop-start of machine, ink change etc., and consumables and tool costs are kept to absolute minimum, whilst still maintaining high production output.

The first commercial installation of the EDM200 was made in 2006 in Germany, where the machine has been producing short-run labels successfully, primarily for the local butcher and chemical industry.

Compared to the many label printers, who are running 1-2 colour simple, short-run jobs on large, multi colour rotary web presses, generating lots of waste and with unnecessary high production costs, EDM200 is considered to be a significant contribution, not only to the (smaller) label printers, who specialise in or are involved in short-run work, but also to the environment. The additional application possibilities are added benefits. For existing flexo printers it further means they can maintain their existing pre-press work-flow and choice of plate materials.

■ Features

Small foot print: (only 2.1 m long)

- Fits almost anywhere, easy and cheap to install
- Low space costs
- Short web path, quick make-ready, low/no waste

High precision insetting register control:

- Insetting of pre-die-cut and/or pre-printed web for over-printing in precise register
- Possible to continue printing after machine stop or reel change, without any loss

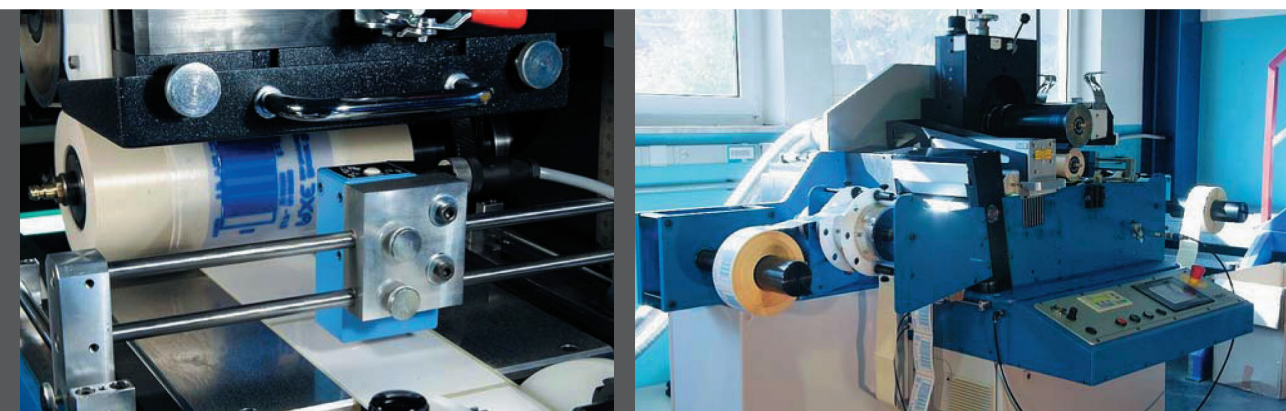
Semi-rotary (intermittent) web advance:

- Infinitely variable format change (via touch-panel control) >> no requirement for changing of printing tools (print cylinder, gear and bearings etc.) >> no tool costs:
 - The Individual printing length infinitely adjustable from 10 mm up to 75% of max. format size of 18" = 342.9 mm –only depending on size of actual sleeve used
- One printing sleeve only is necessary to cover all repeat requirements in semi-rotary mode

Sleeve technology

- **print cylinder:**
 - Seamless (endless) printing is possible
- **anilox sleeve and print cylinder sleeve:**
 - Fast job change-over;
 - No gears and bearings necessary – lower tool costs

■ Benefits



Servo-driven “intelli- gent” shafts:

- **Print cylinder: (= master shaft)**
 - Enables infinite (step-less) format variation for any job size, independent from gear pitch, when in semi-rotary mode
- **Web transport:** • Enables semi-rotary mode
- **Unwind and rewind spindles:** • Enables loop control of the web; • Can run in both directions

Chambered doctor blade system:

- Designed as a cassette for fast and easy ink/colour change
- Clean and simple process, ensuring exact ink metering

UV-flexo printing process:

- Enables maintenance of existing in-house flexo pre-press work flow and choice of materials
- High quality printing on many substrates

Printing plate made for a single repeat only:

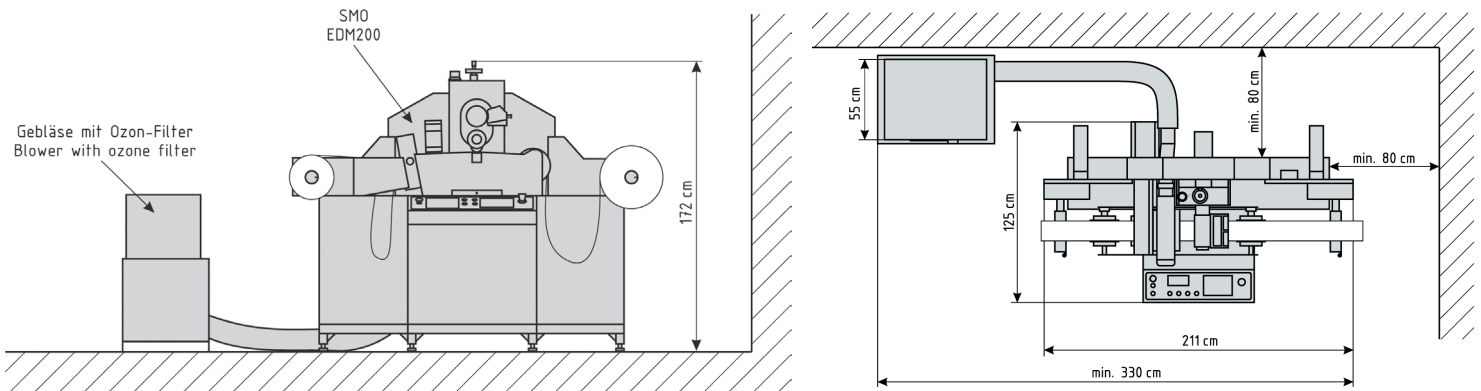
- Keeps plate costs down to a minimum
- Simple handling

Designed to perform:

- Up to 200 impressions per minute in semi-rotary mode
- Up to 90 meters/minute in fully rotary mode, using 18" printing sleeve

Technical data information:

- Web width:**
 - 200 mm - adjustable from 30 to 200 mm
- Repeat range:**
 - 10 mm – 457.2 mm (in semi-rotary mode)
 - 10" to 18" (in fully rotary mode) in steps of 1/8"
- Sleeve sizes:**
 - From 10" up to 18" (each size needs a drive gear with 1/8" pitch for the impression cylinder)
- Production speeds:**
 - Semi-rotary mode: max. 200 impressions per minute / 12,000 per hour
 - Fully rotary mode: Max. 90 meters per minute using 18" sleeve
- Substrate thickness range:**
 - Designed for 60 – 350 g/m² paper, board and normal label stock
- Reel diameters:**
 - Unwind unit = max. 400 mm (max. 40 kg)
 - Rewind unit = 400 mm (max. 40 kg)
- Winding spindles:**
 - Changeable, standard from 1" to 3", larger on request
 - Winding direction variable
- UV-curing system:**
 - Latest technology from GEW: Type VCP
- Processes available:**
 - Overprinting, many times possible
 - UV-varnishing
 - UV Spot varnish for special effects
 - Metallic inks (foil look-alike)
 - Endless / seam less printing (using laser engraved sleeves)



Technical data

- Power supply: 400 V, 50-60 Hz, 3 phases
- Current consumption: 32 A (incl. UV Curing System)
- Compressed air supply: 6-10 bar (90 - 150 psi)
- Compressed air consumption: 0,1 l/h
- Weight: ca. 1100 kg

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